

Patent claims

1. A sealing arrangement for a rolling-contact bearing (2), comprising an elastic sealing disk (3) running around with an outer bearing ring (5) or a housing, having a reinforcement (10) and positionally fixed with positive engagement in a receptacle or an annular groove (4), the sealing disk (3) engaging with a flexible seal in a recess (16) of an inner bearing ring (9) and being supported by means of a sealing edge (17) on a wall (18), characterized in that the first sealing lip (14) is supported axially on the outer wall (18) of the recess (16) and a second sealing lip (15) is assigned to the inner wall (9) of the recess (16) with play, a mass of the first sealing lip (14) forming a center of mass (25), which, in a fitted position of the sealing arrangement (1), is offset in relation to a supporting line determined by the sealing disk (3) in such a way that the centrifugal force acting at the center of mass (25) initiates a force component acting in the clockwise direction.
2. The sealing arrangement as claimed in claim 1, in which a shoulder diameter (D_1) of the inner bearing ring (9) exceeds an inside diameter (D_2) of the inner sealing lip (15).
3. The sealing arrangement as claimed in claim 2, in which a distance (a) between the inner wall (19) of the recess (16) and a free end of the second sealing lip (15) is designed in such a way that, even with a maximum rotational speed of the rolling-contact bearing (2), it ensures a distance (a) > 0.
4. The sealing arrangement as claimed in claim 1, the first and second sealing lips (14, 15) being made

to extend from a common sealing lip root (13) of the sealing disk (13).

5. The sealing arrangement as claimed in claim 1, an axial offset (b) between an end face (23) of the sealing disk (3) and the sealing edge (17) of the first sealing lip (14) being obtained in a fitted position of the two sealing lips (14, 15).
- 10 6. The sealing arrangement as claimed in claim 1, in which the second sealing lip (15), obliquely inclined in relation to the inner wall (19) and designed as a toe wall, is arranged axially offset in relation to the first sealing lip (14) by a 15 distance (c).
- 20 7. The sealing arrangement as claimed in claim 1, the first sealing lip (14) having on the outside, on the side facing the second sealing lip (15), a bead (24).
- 25 8. The sealing arrangement as claimed in claim 1, the recess (16) of which in the inner bearing ring (9) has walls of different heights, the height of the inner wall (19), defined by the shoulder diameter (D_1) of the bearing ring (9), exceeding the size of the diameter (D_3) of the bearing ring (9) in the region between the recess (16) and the end face (22) and also the inside diameter (D_2) of the 30 second sealing lip (15).
- 35 9. The sealing arrangement as claimed in claim 1, the first sealing lip (14) being provided with at least one venting groove (26) in the region of the sealing edge (17).

10. The sealing arrangement as claimed in claim 9, the venting groove (26) of which is made to extend in a radial or inclined manner.
- 5 11. The sealing arrangement as claimed in claim 1, which is intended for a rolling-contact bearing (2) that is used in a tensioning roller or a deflecting roller of a tensioning system by which a belt or the like of a belt, chain or similar drive is pretensioned.
- 15 12. The sealing arrangement as claimed in claim 11, the construction of the tensioning roller or deflecting roller comprising a running disk which encloses the rolling-contact bearing and at the same time undertakes the function of an outer peripheral bearing ring.
- 20 13. The sealing arrangement as claimed in claim 11, in which the tensioning roller or deflecting roller includes a rotationally fixed locating pin or carrying body for the rolling-contact bearing which at the same time includes the function of an inner, rotationally fixed bearing ring.
- 25 14. The sealing arrangement as claimed in claim 1, the reinforcement (10), formed in the manner of a disk, of the sealing disk (3) being encapsulated at least on one side by an elastic sealing material of the sealing arrangement (1) and the reinforcement (10) forming on the outside an angled-away flange (11) and on the inside a leg (12) inclined obliquely in the direction of the recess (16).